(FILE 'HOME' ENTERED AT 13:36:32 ON 21 JAN 2004)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 13:40:25 ON 21 JAN 2004

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L1             0 S RAVEN/AU
L2             7 S DAVIS/AU
L3             0 S RAVEN/AU
L4             0 S WICTOME/AU
L5             1 S THERMOSTABLE KINASE]
L6             1 S THERMOSTABLE KINASE
L7           889 S THERMOSTABLE ENZYME
L8            37 S L7 AND ATP
L9            20 DUP REMOV L8 (17 DUPLICATES REMOVED)
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FILE 'STNGUIDE' ENTERED AT 13:48:03 ON 21 JAN 2004

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L Number	Hits	Search Text	DB	Time stamp
1	581	(436/175).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/01/21 17:53
3	4	(((436/175).CCLS.) and kinase) and heat	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/01/21 17:53
4	1	((((436/175).CCLS.) and kinase) and heat) and 'ADP'	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/01/21 17:54
2	23	((436/175).CCLS.) and kinase	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/01/21 17:55

L Number	Hits	Search Text	DB	Time stamp
1	2899	heat same kinase	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/01/21 15:34
2	1382	(heat same kinase) same enzyme$1	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/01/21 15:35
3	51	((heat same kinase) same enzyme$1) same 'ADP'	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/01/21 15:36

L Number	Hits	Search Text	DB	Time stamp
1	390579	heat same resistance	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/01/21 11:05
2	193101	heat ADJ resistance	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/01/21 11:05
3	16	(heat ADJ resistance) SAME kinase	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/01/21 11:08

mixture of normal PK and a functionally abnormal isoenzyme, the latter differing between the parents. The 2 children suffer from hereditary hemolytic anemia. Their PK must be a combination of the mutant paternal and maternal isoenzymes, and their activities are reduced to about 30%. These enzymes are characterized by an increased affinity for PEP and a decreased affinity for **ADP**, a Hill coefficient of about 1 (indicating lack of cooperativity due to a loss of its allosteric properties), a decreased overall catalytic activity, and a higher **resistance** to **heat** denaturation. Further differences are observed in the sodium dodecyl sulfate-gel electrophoresis between the 2 patients' enzymes. From the enzymological point of view it is impossible to characterize true PK variants in such double heterozygous cases which contain a combination of 2 different isoenzymes. The cause of chronic hemolysis appears to depend mainly on the loss of the allosteric properties, i.e., the lack of enzyme cooperativity.

L6 ANSWER 25 OF 25 MEDLINE on STN
AN 77042308 MEDLINE
DN 77042308 PubMed ID: 10737
TI Calcium uptake by subcellular fractions of human umbilical artery.
AU Clyman R I; Manganiello V C; Lovell-Smith C J; Vaughan M
SO AMERICAN JOURNAL OF PHYSIOLOGY, (1976 Oct) 231 (4) 1074-81.
Journal code: 0370511. ISSN: 0002-9513.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197612
ED Entered STN: 19900313
Last Updated on STN: 19950206
Entered Medline: 19761230
AB Two different mechanisms for the active accumulation of Ca2+ by subcellular fractions of human umbilical artery are described. One, located in the mitochondrial fraction, was induced by exogenous ATP or respiratory substrates (**ADP** and succinate) and was inhibited by azide. The other, located in the microsomal fraction, was induced by ATP and potentiated by oxalate, but not inhibited by azide. Increasing ATP concentrations up to 4-5 mM increased microsomal Ca2+ accumulation, whereas increasing ATP concentration above 2-3 mM caused inhibition of mitochondrial Ca2+ uptake. Although changing pH from 7.4 to 7.2 had no effect on mitochondrial Ca2+ accumulation, it doubled microsomal uptake. Neither adenosine 3',5'-monophosphate nor guanosine 3',5'-monophosphate in the presence or absence of protein **kinase** and **kinase** modulator affected Ca2+ uptake by or phosphorylation of the subcellular fractions. Partially purified protein **kinases** from umbilical and beef skeletal muscle contained a component(s) distinguishable from the **kinase** on the basis of its **heat** stability that enhanced ATP-induced Ca2+ uptake by mitochondrial fractions from the umbilical artery. It is suggested that alterations in Ca2+ sequestration induced by changes in ATP concentration and intracellular pH in mitochondrial and microsomal fractions, respectively, could play a role in the control of arterial patency and closure with changes in PO2.

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(FILE 'HOME' ENTERED AT 11:51:11 ON 21 JAN 2004)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 11:51:25 ON 21 JAN 2004
L1 0 S HEAT RESISTANCE KINASE
L2 169161 S HEAT AND RESISTANCE
L3 729 S L2 AND KINASE
L4 139073 S ADP
L5 35 S L4 AND L3